

In re Chang  
Appln. No. 09/837,217  
Response of March 4, 2005

### REMARKS

Claims 1-6, 8 and 11-14 are currently pending.

In the Notice of Non-Responsive Amendment of February 9, 2005, the Office states that the amendment to the claims filed on September 13, 2004 does not comply with the requirements of 37 CFR 1.121(c) because changes in the amended claims 1 and 5 are not clearly and completely indicated. This notice is respectfully traversed.

Applicant respectfully submits that the amendment of June 1, 2004, properly complied with the requirements of 37 CFR 1.121(c); however, Applicant submits this response to clarify the amendments as requested by the office.

For reference, claims 1 and 5 as amended in the Supplemental Amendment dated October 31, 2003, are listed below.

1. (Currently Amended) A pharmaceutical composition for application at a biodegradable plate-containing site requiring new bone, cartilage or connective tissue formation in a subject, comprising a plurality of bone marrow stromal cells (MSCs) isolated from the subject;

wherein the MSCs comprise a vector comprising a DNA sequence encoding BMP-2 operably linked to a promoter, and a pharmaceutically acceptable polymer, ~~and~~

~~wherein a biodegradable plate is applied to the site prior to the application of the composition.~~

5. (Previously Amended) A method of enhancing new bone, cartilage or connective tissue formation in a subject, comprising:

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- a. obtaining a plurality of bone marrow stromal cells (MSCs) from a subject;
  - b. transducing the MSCs of step a) with a vector comprising a DNA sequence encoding BMP-2 operably linked to a promoter to generate BMP-2 protein producing MSCs;
  - c. applying a biodegradable plate to a site requiring new bone, cartilage or connective tissue formation on the subject; and
  - d. applying a composition comprising the BMP-2 protein producing MSCs and a pharmaceutically acceptable polymer to the site,
- such that new bone, cartilage or connective tissue formation is enhanced.

As such, the pending claims as of October 31, 2004 were as follows:

1. A pharmaceutical composition for application at a biodegradable plate-containing site requiring new bone, cartilage or connective tissue formation in a subject, comprising a plurality of bone marrow stromal cells (MSCs) isolated from the subject;

wherein the MSCs comprise a vector comprising a DNA sequence encoding BMP-2 operably linked to a promoter, and a pharmaceutically acceptable polymer-

5. A method of enhancing new bone, cartilage or connective tissue formation in a subject, comprising:
  - a. obtaining a plurality of bone marrow stromal cells (MSCs) from a subject;

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b. transducing the MSCs of step a) with a vector comprising a DNA sequence encoding BMP-2 operably linked to a promoter to generate BMP-2 protein producing MSCs;

c. applying a biodegradable plate to a site requiring new bone, cartilage or connective tissue formation on the subject; and

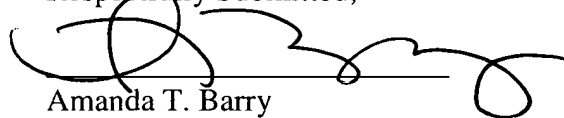
d. applying a composition comprising the BMP-2 protein producing MSCs and a pharmaceutically acceptable polymer to the site,

such that new bone, cartilage or connective tissue formation is enhanced.

Therefore, it is clear that the amendments made herein are proper and comply with 37 CFR 1.121(c), as did the amendments of June 1, 2004.

In view of the above, it is respectfully submitted that the pending claims are in condition for allowance. The Office is encouraged to contact the undersigned with any questions or to otherwise expedite prosecution.

Respectfully Submitted,



Amanda T. Barry  
Reg. No. 51,435

MAYER, BROWN, ROWE & MAW LLP  
P.O. BOX 2828  
CHICAGO, ILLINOIS 60690-2828  
(312) 701-7283

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